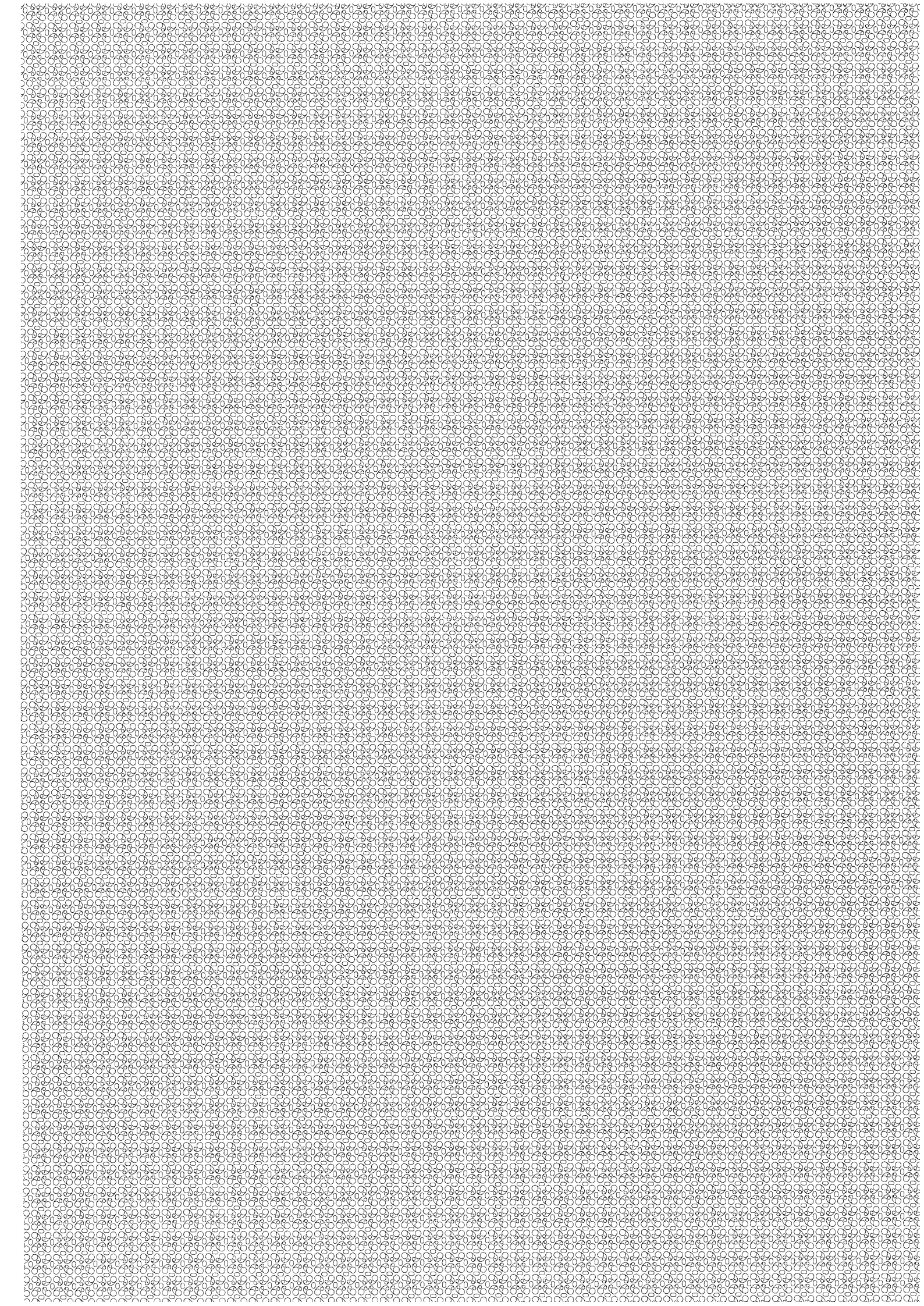


英 語

問題冊子 2

注 意

「問題冊子 2」に印刷されている問題は、**2** から **4** までで、2 ページから 17 ページまであります。



2

次の対話の文章を読んで、あとの各問に答えよ。

(*印の付いている単語・語句には、本文のあとに〔注〕がある。)

Ayano and Hanae are high school students in Tokyo. One day, they see Mr. Green, an ALT from England, in a classroom. He is writing something on the blackboard.

Ayano: Hi, Mr. Green. What are you doing?

Mr. Green: You came at the right time! Can you help me?

Hanae: Sure.

Mr. Green: Well, I'm practicing kanji characters because I have a Japanese language test this weekend. But I can't remember one kanji.

Ayano: What does it look like?

Mr. Green: Let's see It has the sun on the left and the moon on the right. It also has a few numbers.

Ayano and Hanae write some characters on the blackboard.

Mr. Green: This is the one I need. The sun is between two "tens." Thank you. You've been a great help.

Hanae: You're welcome.

Ayano: We learn these four kanji parts when we are in the first year of elementary school.

Mr. Green: It's interesting for me to learn that some characters *are based on things around us. For example, I don't draw the sun like this, but it's very easy to change this Chinese character into an image in my mind. When I see different kanjis that *contain the sun, I can easily imagine that the characters are *connected to it.

Hanae: Yes. When you learn new words, you can guess their meanings if you know each part of the kanji.

Mr. Green: Kanji is similar to the affixes we have in English.

Ayano: Affixes? What are they?

Mr. Green: They are a group of letters added to the beginning or end of a word to change its meaning. For example, if you see a word starting with "re-," you know it means "again."

Hanae: Oh, yes ... and a word starting with “un-” means “not” and a word ending with “-able” means “can.”

Mr. Green: True. I believe some kanji characters have such *functions. Each has its own meaning and if you know these meanings, it'll be easier to understand new words.

Ayano: Now I understand. I'm not good at learning English words because I see each word as one *unit.

Mr. Green: I see. When you try to *memorize information, it's better to connect it to something *meaningful *rather than simply *learn it by heart.

Ayano: I 【 ① many English words ② was ③ have ④ trying ⑤ I ⑥ memorize ⑦ since ⑧ to ⑨ been 】 in junior high school, but my *vocabulary doesn't seem to increase. I wish I had a good memory.

Mr. Green: Do you know Ebbinghaus?

Ayano: Ebbinghaus?

Mr. Green: A German *psychologist. In 1885, he tested how well he remembered a list of three-letter words that had no meaning, over a long time. After he got the results of his *experiment, he made ⁽⁴⁾ a graph that is now known as the “Ebbinghaus Forgetting *Curve.”

Mr. Green takes his smartphone out of his pocket. He searches the Internet for the Forgetting Curve.

Mr. Green: Look at this. The graph shows the *percentage of time saved to learn the words again.

Hanae:

1-b

Mr. Green: For example, you needed ten minutes to memorize the words the first time. Two days later, it took seven minutes when you relearned them. How much time did you save?

Hanae: In that case, I saved 30% of the first time.

Mr. Green: Right.

Hanae: The graph shows that the percentage is 100% right after you have learned something. However, it drops quickly to 58% in just twenty minutes. It goes down to 44% in one hour, 36% in nine hours, and 34% in twenty-four hours. After that, the curve continues going down slowly.

Ayano: How can we keep memory?

Mr. Green: Ebbinghaus also found out that if you repeat or practice something a lot, the information is kept longer in your brain and the forgetting curve becomes *gentler. Using the same information sends a message to your brain to hold on to it. When the same thing is repeated, your brain says,

Hanae: “Oh, there it is again! 1-c”

Mr. Green: That's it!

Hanae: When we see the same information again and again, we need less and less time to make the information active in our memory. Right?

Mr. Green: Yes.

Ayano: Then it becomes easier for us to pull out the information when we need it.

Mr. Green: Exactly. If you spend ten minutes *reviewing within 24 hours of getting the information, you will raise the curve to almost 100% again. A week later, when you review it for the second time, you need only five minutes to pull out the same information, and again raise the curve. In a month, for the third review, your brain will only need two to four minutes to give you the feedback.

Ayano: I don't feel I can make time to review every day.

Mr. Green: I know you are busy. But if you don't review, you will have to spend 40 to 50 minutes relearning each lesson later. 1-d

Ayano: OK. I'll keep that in mind.

〔注〕 be based on ～ ～に基づいている

connect 結び付ける

unit ひとつのまとまり

meaningful 意味のある

learn ～ by heart ～を暗記する

psychologist 心理学者

curve 曲線

gentle 緩やかな

contain 含む

function 機能

memorize 記憶する

rather than ～ ～よりむしろ

vocabulary 語彙

experiment 実験

percentage 割合

review 復習する

〔問1〕 1-a ~ 1-d の中には、それぞれ次の①～⑥のいずれかの英文が入る。それぞれに入る英文を並べた組み合わせとして最も適切なものを、下のア～カの中から一つ選べ。

- ① I must keep it.
- ② What do you mean?
- ③ I'm sick and tired of it.
- ④ What can we do for you?
- ⑤ You're always doing your best.
- ⑥ Do you have that kind of time?

	1-a	1-b	1-c	1-d
ア	④	②	①	⑥
イ	④	③	⑥	⑤
ウ	④	⑥	③	⑤
エ	⑤	②	①	⑥
オ	⑤	③	⑥	④
カ	⑤	⑥	③	④

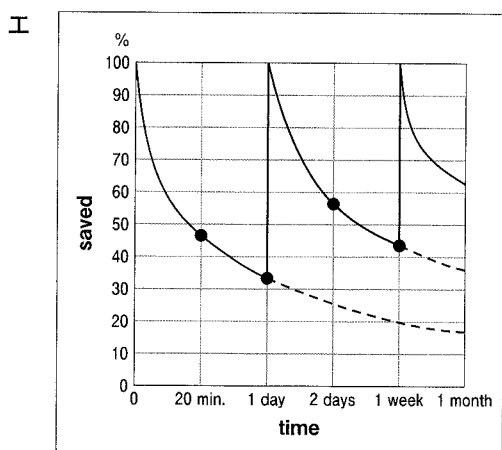
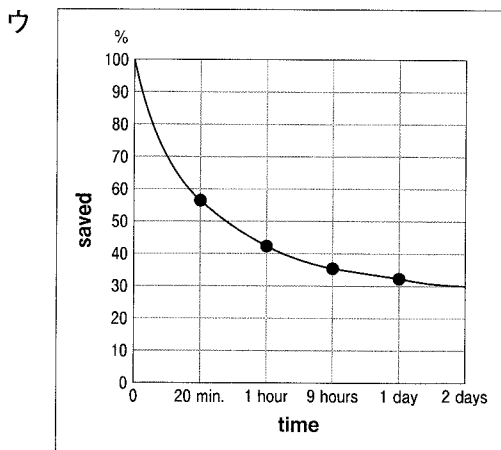
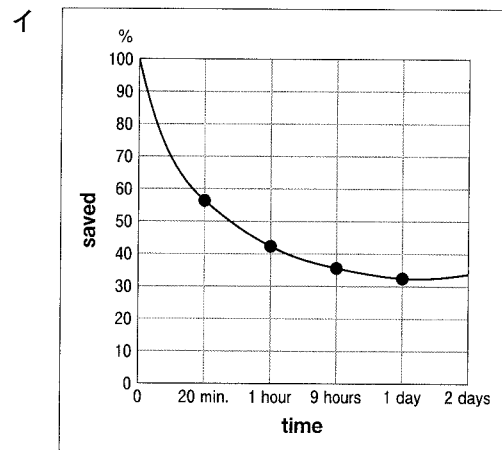
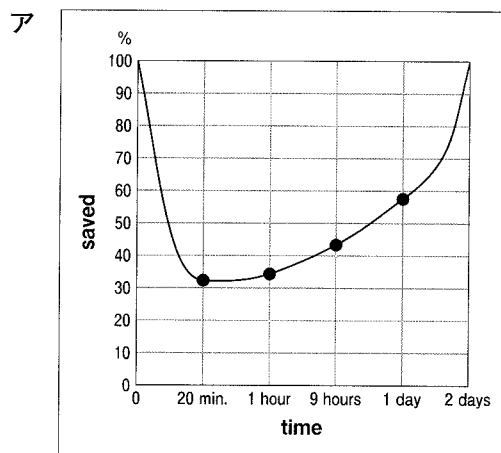
〔問2〕 one kanji について、正しく表しているものは、次のうちではどれか。
(2)

- ア 明
- イ 胆
- ウ 草
- エ 朝

〔問3〕 I ① many English words ② was ③ have ④ trying ⑤ I ⑥ memorize ⑦ since ⑧ to
⑨ been in junior high school とあるが、本文の流れに合うように、【 】内の単語・
 語句を正しく並べかえたとき、【 】内で2番目と5番目と7番目にくるものの組み
 合わせとして最も適切なものを、次のア～カの中から一つ選べ。

	2番目	5番目	7番目
ア	④	①	⑤
イ	④	⑥	⑤
ウ	④	⑧	⑦
エ	⑨	①	⑤
オ	⑨	⑥	⑦
カ	⑨	⑧	⑦

〔問4〕 a graph ⁽⁴⁾について、正しく表しているものは、次のうちではどれか。



〔問5〕 次の英文は本文の内容に関するものである。□の中に入る最も適切な1語を書け。

If you want to increase your English vocabulary, there are some ways to make it easier. One effective way is to learn affixes. Some words have small parts which have their own meaning. Knowing them will help you understand new words or guess their meanings. For example, when you see the word “□,” you can guess that it means you cannot believe it.

〔問6〕 本文の内容と合っているものを、次のア～オの中から一つ選べ。

ア It is difficult for Mr. Green to connect some kanji characters to things around him because he cannot draw pictures well.

イ Ayano wants to increase her English vocabulary, but she is worried that she does not have a good memory.

ウ Ebbinghaus asked some of his students to remember a list of three words which did not have any meaning.

エ Hanae finds out that if she practices something many times, she will be able to save 30% of the time to remember it.

オ Ayano finally accepts Mr. Green's advice to spend forty to fifty minutes reviewing each lesson every day.

3

次の文章を読んで、あとの各問に答えよ。なお、[1]～[7]は段落の番号を表している。
(*印の付いている単語・語句には、本文のあとに〔注〕がある。)

[1] For a long time, farmers have grown fresh fruits and vegetables by using traditional *farming *methods. To produce many kinds of food, farmers need large pieces of land and use various types of *pesticides to kill insects that cause *damage to their plants. , using too many pesticides have sometimes caused serious damage to *soil, water, and air. Now, many *innovative farmers, companies, and scientists are thinking of more *sustainable farming methods that will cause little or no damage to the environment.

[2] What are the good points in sustainable farming? First, it is friendly to the environment because it uses land and natural resources including water and energy in *efficient ways. Second, when farmers stop or reduce the use of pesticides, people will not have to worry about putting them into their bodies. , farmers can continue farming for a long time.

[3] In city areas, some innovative and sustainable farming methods are already used. Among them is *vertical farming. It is usually *indoor farming and is now used in many countries by different sizes of farms and companies. One of the main *purposes of vertical farming is , and we can realize this purpose by using several technologies and methods such as *greenhouses, *artificial light, artificial *pollination, *layered shelves, and hydroponics. Hydroponics is the method of growing plants without soil. , the *roots of plants are in water with *nutrients. It seems to be new, but actually it is ⁽³⁾【① can ② written ③ find ④ a book ⑤ that ⑥ an old ⑦ we ⑧ idea ⑨ in】 about four hundred years ago. Now we use it in innovative ways. Plants are grown on vertical and layered shelves in greenhouses or buildings, so farmers can grow more fruits or vegetables in one place, and they do not need larger land for farming. Also, vertical farming is good for people and nature because it needs few or no pesticides and it can reduce food miles. Food miles show how far food has traveled to get to the people who eat it. Food with fewer food miles is better for the environment because it needs less energy to travel.

[4] There is an example in Singapore. Singapore is a small country and has about five million people. They have few natural resources. They produce less than ten percent of the food they eat, so they must buy food from foreign countries. Some farmers and companies believe vertical farming is a solution to this problem and use this method in various ways.

- [5] One company in Singapore has high towers to grow vegetables, and the towers are in very large greenhouses. Some towers are nine meters above the ground. Each tower has many layered shelves of green plants, and the shelves are *rotated very slowly. By using many layered shelves up above the ground, the company can grow a lot of vegetables in a small space. When the plants on the shelves go up, they can receive natural light. ア When they go down, they can get water which is recycled after it is used as energy to rotate the shelves. イ In this way, this company can save a lot of energy. ウ Also, it is possible to save more than 95% of the water used in traditional farming. エ As a result, they can increase food miles for the vegetables they grow. They can control the environment in the huge greenhouses, so they do not have to worry about the weather or the seasons to grow their vegetables.
- [6] 1-d, vertical farming has some problems. For example, farmers usually need a lot of money to build greenhouses. Making layered shelves is also expensive. Second, many vertical farms use a large amount of electricity for artificial light. In addition, pollination is difficult for some fruits and vegetables because there are not enough insects in the controlled environment. We still need more innovative ideas for this method.
- [7] The number of people is increasing, and the world needs more food. However, there is not enough farmland. We should use natural resources in sustainable and efficient ways, and we need to produce more food. Many people believe that vertical farming can be one of the answers to food problems.

[注] farming	農業	method	方法
pesticide	農薬	damage	害
soil	土	innovative	革新的な
sustainable	持続可能な	efficient	効率がよい
vertical	垂直の	indoor	屋内の
purpose	目的	greenhouse	温室
artificial	人工の	pollination	受粉
layered shelves	多層構造の棚	root	根
nutrient	栄養分	rotate	回転させる

〔問1〕 ～ の中には、それぞれ次の①～④のいずれかの英語が入る。それぞれに入る英語を並べた組み合わせとして最も適切なものを、下のア～カの中から一つ選べ。

- ① On the other hand
- ② Instead
- ③ At the same time
- ④ For these reasons

	l-a	l-b	l-c	l-d
ア	①	②	④	③
イ	①	③	②	④
ウ	①	③	④	②
エ	③	②	①	④
オ	③	④	①	②
カ	③	④	②	①

〔問2〕 本文の流れに合うように、 の中に英語を入れるとき、最も適切なものは、次のうちではどれか。

- ア needing many kinds of pesticides on less land
- イ growing a lot of vegetables on more land
- ウ producing more food on less land
- エ using various technologies on more land

〔問3〕 it is 【 ① can ② written ③ find ④ a book ⑤ that ⑥ an old ⑦ we ⑧ idea ⑨ in 】
 (3)
about four hundred years ago とあるが、本文の流れに合うように、【 】内の単語・
 語句を正しく並べかえたとき、【 】内で3番目と6番目と8番目にくるものの組み合
 わせとして最も適切なものを、次のア～カの中から一つ選べ。

	3番目	6番目	8番目
ア	⑤	③	④
イ	⑤	③	⑨
ウ	⑤	⑨	①
エ	⑨	⑤	①
オ	⑨	⑤	③
カ	⑨	⑦	③

〔問4〕 [5]の段落のア～エの文のうち、文章の流れに合わないものはどれか。

〔問5〕 次の英文は本文の内容について書かれたものであり、5-1 ～ 5-3 の中には単語
 が一つずつ入る。それぞれに入る単語を下のA～Fから一つずつ選んだとき、その組み合
 わせとして最も適切なものを、下のア～カの中から一つ選べ。

One of the 5-1 farming methods is growing food in a 5-2 way. It is different
 from 5-3 farming which usually grows fruits and vegetables on the ground.

A indoor	B natural	C sustainable
D traditional	E various	F vertical

	5-1	5-2	5-3
ア	B	A	F
イ	B	E	A
ウ	C	E	D
エ	C	F	D
オ	D	A	C
カ	D	B	F

〔問6〕 本文の内容と合っているものを、次のア～オの中から一つ選べ。

ア A farming method is good for the environment when it is successful in reducing food miles and allows farmers to use many kinds of pesticides.

イ Vertical farming is a method which is innovative and friendly to the environment, but now it is not possible to use this method in small farms.

ウ People in Singapore have produced various kinds of fruits and vegetables by reducing food miles and using their rich natural resources.

エ The only problem with vertical farming is that farmers or companies have to pay a lot of money to buy land before they start it.

オ We need to solve food problems for the increasing number of people, and we have to use energy, water and land in efficient ways.

4 次の文章を読んで、あとの各問に答えよ。

(*印の付いている単語・語句には、本文のあとに〔注〕がある。)

When Yuri came home, her grandfather was in the kitchen. He said, “Yuri, your mother wanted me to cook chicken curry for you. I know you like it.” She knew her mother and her sister, Sakura, were at the *ballet school. She was preparing for a *recital the next month.

While they were eating, he said, “ Next April, you’re going to enter senior high school. Your mother is worried about you. She has to do a lot of things for Sakura, so she doesn’t have time to talk with you. However, she really *cares about you.”

Sakura was two years younger than Yuri. They did everything together before Sakura started to learn ballet at the age of nine. Sakura wanted Yuri to learn it with her, but she said “No.” Ballet was not interesting for her. She did not like white *tights or *leotards. *Unlike Yuri, Sakura loved ballet. Sakura spent so much time and energy on it.

One day, when Sakura was eleven years old, she said to Yuri, “Will you do my hair? Mom told me to ask you. ” It was a very precious time for them. From that day, Yuri often did Sakura’s hair before she went for her lessons.

After she became a junior high school student, Sakura began to stand out as a ballet dancer. She was always busy with her lessons. Everyone in the junior high school knew about her. Yuri was proud of her sister and did her hair for her lessons as before, but often thought, “I wish I were good at something like Sakura.”

Two weeks before the recital, Ms. Tamura, the *home economics teacher, praised Yuri for her hard work. She said, “This bag has so many *sparkling beads. *Sewing beads needs a lot of time and effort. Good job! I love it!”

Yuri was glad and told Sakura about it at home. While they were talking, Mother came in and found the bag. “What a pretty bag!” Mother stopped talking for a moment, then said, “I have a good idea!” She showed a ballet *costume to them.

“Is this Sakura’s costume for the next recital?” Yuri asked.

“Yes, I have to sew sparkling beads on it,” said Mother.

“Mr. Sakai, my ballet teacher, wanted more beads to make it *gorgeous,” said Sakura.

“ ” asked Mother.

“Mom, I’d love to do that with you!”

Yuri worked with Mother, and she was very happy. She found she really liked sewing.

Sakura was watching them and said to Yuri,

“You are really good at sewing! You have to come to the recital to see me in this costume.”

“I will, Sakura!”

Mother often told her to come and watch Sakura. “Sakura is doing her best. You should come and cheer her on.” Even so, she was not interested in ballet. However, this time she wanted to see the beads on Sakura’s costume with her own eyes, so she decided to go.

This was the first time for Yuri to see a ballet recital. When the recital began, Yuri was surprised. The stage was so beautiful and the dancers seemed so happy. She was also interested to see not only Sakura but also other dancers from different age groups. They were trying to do their best on the stage. The costumes were gorgeous, the music was beautiful, and the stage was designed well for each performance. She said to herself, “How beautiful! I didn’t have a full picture of ballet.”

After the recital, while Yuri and Mother were waiting for Sakura, they had a chance to talk with Mr. Sakai.

“Mr. Sakai, this is Yuri.”

“Hello, Yuri. I’m glad to meet you. I-d”

“Yes! Everything was beautiful. I never thought I could enjoy watching ballet so much. *To be honest, I was not interested in it. But ⁽³⁾ ① has ② today’s performance ③ seeing it ④ way ⑤ changed ⑥ my ⑦ I ⑧ of .”

Mr. Sakai smiled and said, “Ballet is made up of dance, music, costume and stage design, and a lot of time and effort are put in to create the best stage. All these make the *miraculous beauty of ballet. The movements of ballet are difficult, so dancers practice very hard to train their bodies. Your sister Sakura is practicing very hard. By the way, *thanks to your mother, her costume today was gorgeous and made her more beautiful.”

Before Yuri could answer, Mother said to him, “Mr. Sakai, Yuri sewed the beads on it. She is good at sewing.”

“Really? Amazing! Yuri, you should be 4 of yourself. Sakura loves the costume she wore today. She is happy to have a wonderful sister like you!” said Mr. Sakai.

“Thank you. I’m glad to hear that.”

Yuri remembered the *excitement that she had when she saw her sister on the stage. The beads were sparkling. “Now I’ve got something I really want to do.”

〔注〕 ballet バレエ	recital 発表会
care 気にかける	tights タイツ
leotard レオタード	unlike ～ ～と違って
home economics 家庭科	sparkling bead きらきら光るビーズ
sew 縫う	costume 衣装
gorgeous 豪華な	to be honest 正直に言うと
miraculous 奇跡的な	thanks to ～ ～のおかげで
excitement 興奮	

〔問1〕

l-a

 ～

l-d

 の中には、それぞれ次の①～⑥のいずれかの英文が入る。それぞれに入る英文を並べた組み合わせとして最も適切なものを、下のア～カの中から一つ選べ。

- ① Shall I help you, Sakura?
- ② Will you help me, Yuri?
- ③ Do you like sewing?
- ④ Did you enjoy our recital today?
- ⑤ You are better at it.
- ⑥ How's everything going?

	l-a	l-b	l-c	l-d
ア	②	①	③	④
イ	②	①	④	⑥
ウ	③	②	①	④
エ	③	⑤	①	⑥
オ	⑥	⑤	②	③
カ	⑥	⑤	②	④

〔問2〕 I didn't have a full picture of ballet. とあるが、本文中の意味として適切でないもの⁽²⁾は、次のうちではどれか。

- ア She realized that she did not understand what ballet was.
- イ She realized that ballet was more than leotards and tights.
- ウ She realized that her idea of ballet was not right.
- エ She realized that ballet did not draw a picture of herself.

〔問3〕 But 【① has ② today's performance ③ seeing it ④ way ⑤ changed ⑥ my ⑦ I ⑧ of】.⁽³⁾ とあるが、本文の流れに合うように、【 】内の単語・語句を正しく並べかえたとき、【 】内で2番目と5番目と7番目にくるものの組み合わせとして最も適切なものを、次のア～カの中から一つ選べ。ただし、【 】内には不要な選択肢が一つ含まれている。

	2番目	5番目	7番目
ア	①	③	②
イ	①	④	③
ウ	④	①	⑦
エ	④	⑥	③
オ	⑤	③	①
カ	⑤	⑧	②

〔問4〕 次の〔質問〕の答えとして、本文の内容に合う最も適切なものは、下のア～エのうちではどれか。

〔質問〕 Why did Yuri decide to go to the recital?

- ア Because she wanted to see what Sakura looked like in the costume.
- イ Because she wanted to help Sakura do her hair for the recital.
- ウ Because she changed her mind after she heard her grandfather's words.
- エ Because she learned that ballet was not just a dance performance.

〔問5〕 本文の流れに合うように、4に入る最も適切な1語を本文中からそのまま抜き出せ。

〔問6〕 本文の内容と合っているものを、次のア～オの中から一つ選べ。

ア Yuri wanted to start learning ballet with her sister but gave up because she had to study to enter senior high school.

イ Yuri often thought that she was not good at anything, unlike Sakura, before she helped Mother with sewing.

ウ Yuri enjoyed her sister's ballet recital because the dancers were all senior high school students.

エ Before the recital started, Mr. Sakai told Yuri about ballet, so she was able to enjoy ballet for the first time that day.

オ Mother showed Yuri a beautiful bag with sparkling beads because she wanted Yuri to get interested in ballet.

〔問7〕 次の質問に対するあなたの考えを、あなた自身の言葉を用いて、35語以上45語以内の英文で書け。

How can you find what you are interested in?

二つ以上の英文になっても構わない。次の〔例〕のように、「,」「.」などは語数に含めない。短縮形は1語と数える。

〔例〕 Hello, I'm Jane. Nice to meet you.

